

Amendments to the Drawings:

FIG. 4 has been amended to delete reference character 110.

FIG. 5 has been amended to delete reference characters S600, S700, and S800.

FIG. 23 has been amended to include an English translation of Japanese text.

FIG. 25 has been amended to delete reference characters 2502 to 2504.

FIG. 28 has been amended to delete reference character 2899.

FIG. 30 has been amended to include an English translation of Japanese text.

FIG. 31 has been amended to delete reference character 3101.

FIG. 47 has been amended to delete reference character 4708.

FIG. 55 has been amended to include an English translation of Japanese text.

FIG. 56 has been amended to include an English translation of Japanese text and to delete reference character 5606.

FIG. 57 has been amended to include an English translation of Japanese text.

FIG. 58 has been amended to delete reference character 5805.

FIG. 62 has been amended to delete reference character 6205.

FIG. 72 has been amended to delete reference characters 7201 to 7203.

FIG. 73 has been amended to delete reference characters 7301 to 7303.

FIG. 76 has been amended to include an English translation of Japanese text and to delete reference characters 7603 and 7606.

FIG. 77 has been amended to include an English translation of Japanese text.

FIG. 80 has been amended to delete reference characters 8001 to 8003 and 8005.

FIG. 84 has been amended to delete reference character 8401.

FIG. 96 has been amended to delete reference characters S965 to S968.

There are 20 attached replacement sheets of drawings, which reflect the foregoing amendments to Figures 4, 5, 23, 25, 28, 30, 31, 47, 55, 56, 57, 58, 62, 72, 73, 76, 77, 80, 84, and 96. These replacement sheets are submitted to replace the original sheets comprising these Figures.

REMARKS

I. Claim Status

Upon entry of the foregoing amendments, claims 1, 5, 6, 7, 8, and 9 are pending in this application, of which claim 1 is independent in form. Claims 2-4 and 10-18 have been canceled herein without prejudice or disclaimer. Claims 1, 5, 6, 7, 8, and 9 have been amended herein. No new matter has been added by these amendments.

II. Request for Examiner-initialed PTO-1449

Applicants would like to thank the Examiner for initialing and returning several Form PTO-1449 sheets that have been submitted. However, a Form PTO-1449, which was submitted on August 22, 2003, was returned without the Examiner's initials appearing in the left-hand column of the line listing U.S. Patent No. 5,930,460. Applicants respectfully request that the reference disclosed in the Form PTO-1449 submitted on August 22, 2003 be considered and that an initialed copy be returned to Applicants at the Examiner's earliest convenience.

III. Objections to the Drawings

A. The Examiner has objected to the drawings as failing to comply with 37 C.F.R. § 1.84(p)(5) because they include various reference characters not mentioned in the description, including the following reference characters: 110, S700, S800, S516, 2502, 2503, 2504, 2899, 3101, S4003, S4012, 4609, 4610, 4708, 4801, 5805, 6002, 6205, 6506, 7201, 7201, 7203, 7301, 7302, 7303, 7603, 7606, S795, 8001, 8002, 8003, 8005, 8401, S965, S966, S967, and S968.

Regarding the reference character 110, Applicants submit herewith a replacement sheet for FIG. 4, which has the reference character 110 deleted.

Regarding the reference characters S700 and S800, Applicants submit herewith a replacement sheet for FIG. 5, which has the reference characters S700 and S800 deleted.

Regarding the reference character S516 of FIG. 14, the Specification at page 31, line 26 to page 32, line 1 describes step S516, without explicitly referring to it. Applicants have amended the Specification to provide an explicit reference to step S516.

Regarding the reference characters 2502 to 2504, Applicants submit herewith a replacement sheet for FIG. 25, which has the reference characters 2502 to 2504 deleted.

Regarding the reference character 2899, Applicants submit herewith a replacement sheet for FIG. 28, which has the reference character 2899 deleted.

Regarding the reference character 3101, Applicants submit herewith a replacement sheet for FIG. 31, which has the reference character 3101 deleted.

Regarding the reference character S4003 of FIG. 40, the Specification at page 48, lines 2-4 describes step S4003, without explicitly referring to it. Applicants have amended the Specification to provide an explicit reference to S4003.

Regarding the reference character S4012 of FIG. 40, the Specification at page 48, lines 20-22 describes step S4012, without explicitly referring to it. Applicants have amended the Specification to provide an explicit reference to S4012.

Regarding the reference character 4609 of FIG. 46, the Specification at page 56, line 19 describes the reference character 4609, but inadvertently refers to it as 4601. Applicants have amended the Specification to provide an explicit reference to the reference character 4609.

Regarding the reference character 4610 of FIG. 46, the Specification at page 56, line 20 describes the reference character 4610, but inadvertently refers to it as 4601. Applicants have amended the Specification to provide an explicit reference to the reference character 4610.

Regarding the reference character 4708, Applicants submit herewith a replacement sheet for FIG. 47, which has the reference character 4708 deleted.

Regarding the reference character 4801 of FIG. 48, the Specification at page 58, line 19 explicitly refers to a dialog 4801. Thus, no corrective action is believed necessary.

Regarding the reference character 5805, Applicants submit herewith a replacement sheet for FIG. 58, which has the reference character 5805 deleted.

Regarding the reference character 6002 of FIG. 60, the Specification at page 67, line 13 describes the reference character 6002, without explicitly referring to it. Applicants have amended the Specification to provide an explicit reference to the reference character 6002.

Regarding the reference character 6205, Applicants submit herewith a replacement sheet for FIG. 62, which has the reference character 6205 deleted.

Regarding the reference character 6506 of FIG. 65, the Specification at page 72, lines 22-24 describe the reference character 6506, without explicitly referring to it. Applicants have amended the Specification to provide an explicit reference to the reference character 6506.

Regarding the reference characters 7201 to 7203, Applicants submit herewith a replacement sheet for FIG. 72, which has the reference characters 7201 to 7203 deleted.

Regarding the reference characters 7301 to 7303, Applicants submit herewith a replacement sheet for FIG. 73, which has the reference characters 7301 to 7303 deleted.

Regarding the reference characters 7603 and 7606, Applicants submit herewith a replacement sheet for FIG. 76, which has the reference characters 7603 and 7606 deleted.

Regarding the reference character S795 of FIG. 79, the Specification at page 87, lines 19-20 describe the reference character S795, without explicitly referring to it. Applicants have amended the Specification to provide an explicit reference to the reference character S795.

Regarding the reference characters 8001 to 8003 and 8005, Applicants submit herewith a replacement sheet for FIG. 80, which has the reference characters 8001 to 8003 and 8005 deleted.

Regarding the reference character 8401, Applicants submit herewith a replacement sheet for FIG. 84, which has the reference character 8401 deleted.

Regarding the reference characters S965 to S968, Applicants submit herewith a replacement sheet for FIG. 96, which has the reference characters S965 to S968 deleted.

B. FIG. 66 has been objected to as failing to comply with 37 C.F.R. § 1.84(p)(5) because FIG. 66 purportedly is not mentioned in the description. FIG. 66 is mentioned in the Specification at page 72, lines 6-10 and again at page 74, line 23. Thus, no corrective action is believed necessary.

C. The Examiner has further objected to the drawings as failing to comply with 37 C.F.R. § 1.84(p)(5) because they do not include the reference characters 6404 and 5606 that are mentioned in the description.

Regarding the reference character 6404, the Specification at page 56, line describes the reference character 4604. However, due to a typographical error, this section recites “the field 6404” instead of “the field 4604.” Applicants have amended the Specification to correct this typographical error.

Regarding the reference character 5606, Applicants have amended FIG. 56 to add the reference character 5606.

D. The Examiner has also objected to the drawings as failing to comply with 37 C.F.R. § 1.84(p)(4) because the reference character “S600” has been used to designate both “Work Name” in FIG. 5 and “Selection of Product (Fig. 52)” of FIG. 51. Applicants have further amended FIG. 5 to remove the reference character S600.

E. FIG. 55 has been further objected to as reference character “5507” points to a “Revision” column, which conflicts with the Specification at page 70, lines 20-21, where the reference character “5507” is associated with a “correction” field. Applicants have amended the Specification at page 70, line 17 and lines 20-21 to replace recitations of “correction” with “revision.”

F. FIGS. 23, 30, 55, 56, 57, 76, and 77 have been further objected to, because the written content does not have an English translation indicated. Applicants submit herewith replacement drawing sheets for FIGS. 23, 30, 55, 56, 57, 76, and 77, which have written content that has been translated into English.

IV. Objections to the Specification

A. The Examiner has objected to the Abstract, because it contains greater than 150 words. Applicants have herein amended the Abstract to contain less than 150 words. Accordingly, Applicants respectfully request withdrawal of the objections to the Abstract.

B. Further, the Examiner has objected to the Disclosure because of informalities.

Applicants have herein amended the Specification to address each of these formalities.

Accordingly, Applicants respectfully request withdrawal of the objections to the Disclosure.

V. Claim Rejections

A. Claim Rejections – 35 U.S.C. § 112

Claims 2, 4, 11, and 12 have been rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter. Claims 2, 4, 11, and 12 have been canceled herein, thereby rendering the rejection of these claims moot, which rejection should thus be withdrawn.

B. Claim Rejections – 35 U.S.C. § 101

Claims 1-18 have been rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. More specifically, with respect to claims 1-3, the Office Action asserts, *inter alia*, that the claimed subject matter is directed to an abstract idea and is not limited to the technological art because the claimed method can be performed “in the mind of the user or by use of pencil and paper.” With respect to these claims, the Office Action further alleges that “[e]ven if the invention were to be considered a computer-related invention, the claims as written would be considered nonstatutory functional descriptive material.” Moreover, the Office Action states that “[a]dditionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result” while “[i]n the present case, the claimed invention produces an assembly information management system,” the office action further stating that “nothing in the body of the claims recite any structure or functionality to suggest that

a computer performs a task.” As to the recitations of claims 4, 10, 11 and 12, the Office Action asserts that these recitations nevertheless amount to nothing being “done (i.e., computing) to breathe life into the invention.” The Office Action further states that “the recited process produces a useful, concrete, and tangible result” but alleges that “since the claimed invention, as a whole, is not within the technological arts as explained above, the same rejection as stated above for claim 1, 2 and 3 applies to **claims 4-18.**”

Applicants respectfully traverse this rejection, and submit that Applicants’ invention, as claimed prior to the present amendment, recites statutory subject matter under 35 U.S.C. §101 at least because these claims, as plainly understood by those skilled in the art in light of the specification, are clearly directed not to an abstract idea or functional descriptive material *per se*, but to, *inter alia*, a computer implemented invention that is configured to provide a useful, concrete, and tangible result. More specifically, in the instant case, Applicants submit that claims, as set forth prior to the instant Amendment, are drawn to statutory subject matter (i.e., are in the technological arts, constituting a practical application of an abstract idea) because they require, *inter alia*, providing computer based components (e.g., cooperative with or operated on by a processor) that are configured and operative in providing a “concrete, tangible, and useful” result such as in generating work standard data that is automatically divided, based on assigned manhour data and a predetermined composition condition, and distributed to plurality of assembly stations.

Further, with reference to the Office Action’s allusion to the so-called “mental steps exception,” Applicants respectfully submit that a claimed invention that provides a “useful, concrete, and tangible” result is statutory subject matter even if the claim limitations may involve mental steps. Said differently, if a claimed invention provides a “useful, concrete, and tangible”

result, then it is limited to a practical application, and thus the claimed subject matter does not improperly preempt the claimed subject matter (e.g., method) from being used in other applications, viz., the claim is not directed to a disembodied concept or mathematical algorithm in the abstract.

Although Applicants respectfully maintain that the claims prior to the instant amendment are clearly directed to a practical application in the technological arts, Applicants have nevertheless amended these claims to further clarify that the claimed subject matter corresponds to such a practical application. For example, independent claim 1 now recites an assembly information management system with a structure that includes, *inter alia*, “a work standard creation subsystem having a database,” “a retrieving unit for retrieving, from the database, the operation phrases,” “a first storage unit for storing the selected operation, object and comment phrases as work standard data,” “a standard manhour database having a second storage unit for storing records each constituted by the work standard data,” “a standard manhour setting subsystem,” “a matching search unit for executing a matching search of each record of the standard manhour database,” “a work assignment subsystem,” “a download unit for downloading the work standard data with the assigned manhour data from said standard manhour setting subsystem” and “a composing unit for divisionally composing the work standard data to a plurality of stations on the basis of the composition condition.”

These computer-related components recite more than mere functional description material. One of ordinary skilled in the art will readily recognize many of these components as including instructions stored on a computer-readable medium, which are executed by a computer-related processor. Certainly, an information system with these components is within the technological arts.

Further, the structure of the assembly information management system according to independent claim 1 produces a useful, concrete, and tangible result. That is, the information system according to independent claim 1 advantageously automates a complex task of assembly information management and produces work standard data that is automatically divided, based on assigned manhour data and a predetermined composition condition, and distributed to plurality of assembly stations. One result of employing such a system is that assembly setup time is reduced, which results in a cost saving to an operator. Another result of employing such a system that reduces assembly setup time is that products are manufactured more quickly, which results in a business advantage for the operator compared to competitors who do not employ such a system. Consequently, use of such a system results in higher profits for the operator.

Accordingly, for at least the foregoing reasons, Applicants respectfully submit that the herein amended claims—as well as the claims pending prior to the instant amendment—are directed to statutory subject matter, and thus respectfully request withdrawal of the rejection under 35 U.S.C. § 101.

C. Claim Rejections – 35 U.S.C. § 103

1. The Office Action states that claims 1-18 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,980,084 to Jones et al. (“Jones”) in view of U.S. Patent No. 6,385,621 to Frisina (“Frisina”). For clarity, Applicants respectfully note that although p. 13 of the Office Action states that this rejection applies to claims 1-18, the Office Action does not apply the bases for this rejection (i.e., combination of Frisina and Jones) to claims 7 and 14, which are separately rejected under 35 USC §103(a) based

on Jones and Frisina in view of a further reference as noted below. Thus, Applicants submit that the alleged §103(a) rejection based on Jones and Frisina applies only to claims 1-6, 8-13, and 15-18. In any case, Applicants respectfully traverse this rejection for at least the following reasons.

Amended independent claim 1 requires, *inter alia*, a work standard creation subsystem having a database accumulating operation phrases representing an operation of the work, object phrases representing a target of the operation, and comment phrases; and “a retrieving unit for retrieving, from the database, the operation phrases including a first character designated by a user, object phrases including a second character designated by the user, and comment phrases including a third character designated by the user.” Amended independent claim 1 further requires “a selecting unit for selecting one operation phrase from the retrieved operation phrases, selecting one object phrase from the retrieved object phrases, and selecting one comment phrase from the retrieved comment phrases, according to an operation by the user, and a first storage unit for storing the selected operation, object and comment phrases as work standard data.”

Applicants respectfully submit that Jones and Frisina, individually or in combination, do not disclose or suggest a system that includes a work standard creation subsystem, including a retrieving unit and a selecting unit, as recited in independent claim 1. Thus, Applicants believe that amended claim 1 defines patentable subject matter.

2. As indicated above, claims 7 and 14 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Jones and Frisina in view of U.S. Patent No. 5,010,486 to Suzuki et al. ("Suzuki"). Applicants respectfully traverse this rejection.

As claim 14 has been herein canceled (without prejudice or disclaimer), Applicants submit that this rejection has been obviated and rendered moot.

Applicants further submit that Suzuki, individually or in combination with Frisina and Jones, fails to cure the above-stated deficiencies of Jones and Frisina. Thus, Applicants believe that amended claim 1, from which claim 7 depends, defines patentable subject matter even in view of Jones, Frisina, and Suzuki. Thus, claim 7 defines patentable subject matter for at least similar reasons.

3. Applicants have not independently addressed the patentability of the dependent claims because Applicants submit that, as the independent claims from which the dependent claims depend are believed allowable for at least the reasons discussed *supra*, the dependent claims are believed allowable for at least similar reasons. Applicant, however, reserves the right to address and present independent bases for allowance of the dependent claims should such be necessary and appropriate.

CONCLUSION

In view of the foregoing, Applicant submits that the claims as herein presented are allowable over the prior art of record and that the rejections, being overcome or otherwise rendered moot, be withdrawn. Applicant further submits that the application is hereby placed in condition for allowance which action is respectfully requested.

AUTHORIZATION

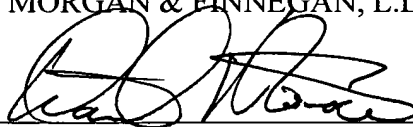
The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. 13-4500, Order No. 1232-4669. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

In the event that an extension of time is required, or which may be required in addition to that requested in the petition for an extension of time filed concurrently herewith, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. 13-4500, Order No. 1232-4669. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

If any outstanding issues remain, the Examiner is invited to contact the undersigned at the telephone number below.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

Dated: July 8, 2005

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